



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,989	04/12/2001	Tetsuya Shibata	55818 (70801)	2084

21874 7590 10/20/2004
EDWARDS & ANGELL, LLP
P.O. BOX 55874
BOSTON, MA 02205

EXAMINER

MENBERU, BENIYAM

ART UNIT PAPER NUMBER

2626

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,989

Applicant(s)

SHIBATA ET AL.

Examiner

Beniyam Menberu

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/12/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/15/04, 04/12/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 04/12/2000. It is noted, however, that applicant has not filed a certified copy of the 2000-110856 application as required by 35 U.S.C. 119(b).

Specification

1. The disclosure is objected to because of the following informalities:

On page 16, lines 10,13, 16, and page 17, lines 17, 19-20, the "storage medium 10" does not match the description in Figure 1 for reference 10.

On page 17, lines 14 and 18, the "storage medium reading section 11" does not match the description in Figure 1 for reference 11.

On page 17, line 17 the "storing medium 10" should be "storage medium 10".

On page 19, line 23 the word "massage" should be "message".

Appropriate correction is required.

Drawings

2. The drawings are objected to because the step "S210" on Figure 7(b) is not labeled correctly with respect to the definition of the step "S210" in the specification. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should

Art Unit: 2626

include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 3, 5, 6, 8, 9, 10, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu.

Regarding claim 1, Mishima et al disclose a communication system serving as a transmitter terminal and a receiver terminal for communications with a second communication system via a communication line, the communication system comprising:

- a storage section for data storage (Figure 3, reference 30; column 9, lines 30-35);

- a communication section for data communications, the communication section being adapted for reception and transmission of data and size information indicative of the size of the data with respect to the second communication system (column 9, lines 32-35; The capacity or size of image data "CAPA(n)" is transmitted (column 16, lines 31-36));

- a detection section for detecting a free space in the storage section (column 14, lines 2-25);

- a comparing section for comparing the data size contained in the size information with the size of the free space in the storage section (column 14, lines 56-64);

- a calculating section for, if the storage section is short of free space for accommodation of the data size, calculating a waiting period required for recovery from the shortage of the free space in the storage section (Figure 13, reference 312; column 15, lines 62-67; column 16, lines 13-24);

However Mishima et al does not disclose a timer section for timing the lapse of the waiting period.

Shimizu discloses a transmission system comprising of a timer section for timing the lapse of the waiting period (Shimizu discloses a transmission system wherein

the transmission is delayed until the end of a lapse wherein receiver is unavailable.
Thus implying a timing section (column 2, lines 63-68; column 3, lines 1-3)).

Mishima et al and Shimizu are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the timing section of Shimizu into the communication system of Mishima et al to perform data transmission/reception with waiting period whenever there is lack of free memory space.

The motivation to combine the reference is clear because a timer as taught by Shimizu is necessary to determine the duration of a waiting period in the case of a period where there is not enough memory to perform a communication task.

Regarding claim 2, Mishima et al in view of Shimizu teach all the limitations of claim 1. Further Shimizu discloses a communication system as set forth in claim 1, wherein, when the communication system functions as the receiver terminal, the communication section requests the second communication system to transmit the data and the size information thereto (Shimizu, column 10, lines 35-40; column 10, lines 25-30), and receives the size information from the second communication system (Shimizu, column 10, lines 52-56; figure 10, reference (3)), wherein, if the size of the free space in the storage section is smaller than the data size contained in the size information (Mishima et al disclose a comparing section for comparing free memory size with data size(column 14, lines 56-64).), the communication section gives information of a reception disabled state thereof and the waiting period to the second communication

Art Unit: 2626

system (Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68; column 11, lines 1-2).), and causes the second communication system to transmit the data thereto after the lapse of the waiting period (column 2, lines 63-68; column 3, lines 1-3).

Regarding claim 3, Mishima et al in view of Shimizu teach all the limitations of claim 2. Further Shimizu discloses a system wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section gives information of the reception disabled state thereof to the external terminal, and is prohibited from data reception (Shimizu discloses an interruption flag for setting interruption on or off. Thus image reception during waiting time can cause interruption or forced to wait until wait time expires (column 13, lines 28-39)).

Regarding claim 5, Mishima et al in view of Shimizu teach all the limitations of claim 1. Further Mishima et al in view of Shimizu disclose a system wherein, when the communication system functions as the transmitter terminal, the communication section receives a request for transmission of the data and the size information from the second communication system and, in response to the request, transmits the size information to the second communication system (Shimizu; column 10, lines 24-30), wherein, if a storage section of the second communication system is short of free space (Mishima et

al ; column 15, lines 38-50), the communication section receives from the second communication system a waiting period required for recovery from the shortage of the free space in the storage section of the second communication system(Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68;column 11, lines 1-2)), disconnects the communication line and, after the lapse of the waiting period, establishes a line connection again to the second communication system to transmit the data to the second communication system (Shimizu; column 2, lines 63-68; column 3, lines 1-3).

Regarding claim 6, Mishima et al in view of Shimizu teach all the limitations of claim 5. Further Mishima et al in view of Shimizu disclose a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period (column 12, lines 11-21).

Regarding claim 8, Mishima et al in view of Shimizu teach all the limitations of claim 1. Further Mishima et al disclose that the device can be a facsimile machine (column 28, lines 9-13).

Regarding claim 9, Mishima et al in view of Shimizu teach all the limitations of claim 1. Further Mishima et al disclose a system which is an information processing system (column 2, lines 59-65) having a communication function (column 9, lines 32-36).

Regarding claim 10, Mishima et al in view of Shimizu teach all the limitations of claim 2 or 5. Further Shimizu discloses a communication system as set forth in claim 2 or 5, wherein the data is image data (column 1, lines 5-8).

Regarding claim 11, Mishima et al in view of Shimizu teach all the limitations of claim 2 or 5. Further Mishima et al disclose a communication system as set forth in claim 2 or 5, wherein the data is an E-mail (Mishima et al disclose an Ethernet connection for a system (column 17, lines 64-67; Figure 25, reference 3, 4).

Regarding claims 12 and 13, Mishima et al in view of Shimizu disclose a method and program (Mishima et al; column 9, lines 8-12; Shimizu column 10, lines 15-17) to implement the following processes:

- causing a communication section of the receiver terminal to request transmission of data and size information indicative of the size of the data from the transmitter terminal (Shimizu, column 10, lines 35-40; column 10, lines 25-30);

- causing a detection section of the receiver terminal to detect a free space in a storage section of the receiver terminal (Mishima et al; column 14, lines 2-25);

- causing a comparing section of the receiver terminal to compare the data size contained in the size information with the size of the free space in the storage section of the receiver terminal (Mishima et al; column 14, lines 56-64);

if the storage section of the receiver terminal has a sufficient free space for accommodation of the data size, causing the transmitter terminal to transmit the data to the communication section of the receiver terminal (Mishima et al disclose that when a digital copier has enough free memory, it can be selected to receive printing data (column 26, lines 38-50));

and if the storage section of the receiver terminal is short of free space for accommodation of the data size, causing a calculating section of the receiver terminal to calculate a waiting period required for recovery from the shortage of the free space in the storage section(Mishima et al; Figure 13, reference 312; column 15, lines 62-67; column 16, lines 13-24); , causing the communication section of the receiver terminal to give information of a reception disabled state of the receiver terminal and the waiting period to the transmitter terminal(Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68;column 11, lines 1-2).), causing a timer section of the receiver terminal to time the lapse of the waiting period, and causing the transmitter terminal to transmit the data to the communication section of the receiver terminal after the lapse of the waiting period (column 2, lines 63-68; column 3, lines 1-3).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu further in view of U.S. Patent No. 5216520 to Omura et al.

Regarding claim 4, Mishima et al in view of Shimizu teach all the limitations of claim 2. Mishima et al in view of Shimizu does not disclose a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period.

Omura et al discloses a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period (Omura et al discloses a system wherein during reception mode a transmission mode can be performed (Figure 11a, 11b). In Figure 11b a timer is started at step S712 to prevent reception until it counts to a certain value (column 7, lines 23-28). Once the timer starts the transmission can occur until line disconnection (Figure 11b, reference S715).).

Mishima et al and Shimizu and Omura et al are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the transmission capability during reception mode as taught by Omura et al with the combined communication system of Mishima et al in view of Shimizu to perform transmission during the reception mode.

The motivation to combine the reference is clear because it would be efficient to perform transmission during the reception waiting period to increase the productivity of the communication system.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu further in view of U.S. Patent No. 5055945 to Oguma et al.

Regarding claim 7, Mishima et al in view of Shimizu teach all the limitations of claim 5. Mishima et al in view of Shimizu does not disclose a communication system, wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section receives data from the external terminal on condition that the data from the external terminal has a size such that the data reception can be completed before the lapse of the waiting period.

Oguma et al disclose a communication system, wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section receives data from the external terminal on condition that the data from the external terminal has a size such that the data reception can be

Art Unit: 2626

completed before the lapse of the waiting period (Oguma discloses a communication system that transmits continuously with the capability of inserting reception of data in between the transmission mode wherein the reception is done within a predetermined amount of time (column 1, lines 45-62).).

Mishima et al, Shimizu, and Oguma et al are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the system of Oguma et al that performs reception of data during transmission with the combined system of Mishima et al in view of Shimizu to implement reception during the transmission mode.

The motivation to combine the reference is clear because Oguma et al disclose that the reception during transmission mode can be used during emergency (column 1, lines 58-61).

Other Prior Art Cited

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5930003 to Kondo discloses a facsimile apparatus which can transmit or receive while managing the capacity of the memory.

U.S. Patent No. 5825992 to Satoh discloses a facsimile device with two different receiving modes.

U.S. Patent No. 6381038 to Endo discloses a facsimile system with response timers.

U.S. Patent No. 6124942 to Ichinowatari discloses a facsimile apparatus with a buffer memory.

U.S. Patent No. 5208681 to Yoshida discloses a communication apparatus that can receive information about the memory of the receiving device.

U.S. Patent No. 5392132 to Yamamoto et al discloses a facsimile apparatus with relay station.

U.S. Patent No. 5134502 to Nakatsuma discloses an apparatus for communication of data.

U.S. Patent No. 6574452 to Morvan et al discloses a network communication method.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (703) 306-3441. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2626

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

Patent Examiner

Beniyam Menberu

BM

10/05/2004

KA Williams

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER